

What is claimed is:

- 1 1. A method to combine diversely encoded audio data streams, comprising:
 2 receiving a first audio data stream in a first perceptually based format;
 3 decoding the first audio data stream into a raw format;
 4 obtaining a second audio data stream in the raw format; and
 5 combining the decoded first audio data stream with the second audio data
 6 stream.

- 1 2. The method of claim 1, further comprising encoding the combined audio
 2 data stream into a second perceptually based format.

- 1 3. The method of claim 2, wherein the act of encoding the combined audio
 2 data stream into the second perceptually based format comprises encoding the
 3 combined audio data stream into an AC-3 format.

- 1 4. The method of claim 2, wherein the act of encoding the combined audio
 2 data stream into the second perceptually based format comprises encoding the
 3 combined audio data stream into a MPEG-2 format.

- 1 5. The method of claim 2, further comprising transmitting the encoded
 2 combined audio data stream to a circuit.

- 1 6. The method of claim 5, wherein the combined audio data stream
 2 comprises a digital data stream.

1 7. The method of claim 1, wherein the act of receiving a first audio data
2 stream comprises receiving an audio data stream encoded in the AC-3 format.

1 8. The method of claim 1, wherein the act of receiving a first audio data
2 stream comprises receiving an audio data stream encoded in the MPEG-2 format.

1 9. The method of claim 1, wherein the act of decoding the first audio data
2 stream into a raw format comprises decoding the first audio data stream into a
3 linear pulse code modulated format.

1 10. The method of claim 1, wherein the act of combining comprises mixing
2 the first audio data stream and the second audio data stream to generate a
3 single composite audio data stream.

1 11. The method of claim 1, wherein the act of obtaining a second audio data
2 stream in a raw format comprises:
3 receiving a second audio data stream in a third perceptually based format;
4 and
5 decoding the second audio data stream into the raw format.

0916349-1.0390

Sub
E3

12. A program storage device, readable by a programmable control device, comprising:

instructions stored on the program storage device for causing the programmable control device to

receive a first audio data stream in a first perceptually based format;

decode the first audio data stream into a raw format;

acquire a second audio data stream in the raw format; and

combine the decoded first audio data stream with the second audio data stream.

13. The program storage device of claim 12, wherein the instructions further comprise instructions to encode the combined audio data stream into a second perceptually based format.

14. The program storage device of claim 105, further comprise instructions to transmit the encoded combined audio data stream to a circuit.

15. The program storage device of claim 14, wherein the circuit comprises a CODEC circuit.

16. The program storage device of claim 12, wherein the instruction to acquire a second audio data stream in a raw format comprise instructions to:

receive a second audio data stream in a third perceptually based format;

and

decode the second audio data stream into the raw format.

1 17. A computer system comprising:
2 a multimedia source;
3 a host processor to receive an encoded data stream from the multimedia
4 source and to extract a first encoded audio stream from the encoded data
5 stream;
6 a decoder to receive the first encoded audio stream from the host
7 processor and to generate a first raw audio stream based on the first encoded
8 audio stream;
9 a mixer to combine the first raw audio stream and a second raw audio
10 stream to generate a combined audio stream; and
11 an encoder to receive the combined audio stream and to generate a
12 second encoded audio stream.

1 18. The computer system of claim 17, further comprising an audio CODEC
2 circuit to receive the combined audio stream.

1 19. A method to combine diversely encoded data streams, comprising:
2 receiving a first data stream in a first compressed format;
3 decoding the first data stream into an uncompressed format;
4 obtaining a second data stream in the uncompressed format; and
5 combining the decoded first data stream with the second data stream.

1 20. The method of claim 19, further comprising encoding the combined data
2 stream into a second compressed format.

1 21. The method of claim 19, wherein the first data stream comprises an audio
2 data stream.

1 22. The method of claim 19, wherein the first data stream comprises a video
2 data stream.

1 23. The method of claim 22, wherein the compressed format comprises a
2 MPEG format.

0918548-4258162

Add
H1